

Memorandum

To: DEPUTY DISTRICT DIRECTORS

Date: July 24, 2002

File No.: NAHW File

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENVIRONMENTAL ANALYSIS - MS27

Subject: Standardization of Noise Reports

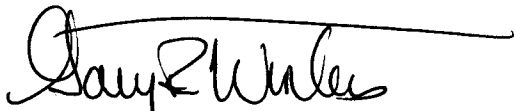
As part of the Department's continuing effort to streamline the environmental process and to facilitate the development of well crafted high quality technical documents the attached standard noise study outline is to be used for all Department noise technical studies.

The California Traffic Noise Analysis Protocol (CaTNAP) was released in 1998 to assist the districts in developing noise reports for Type 1 projects to meet the requirements of the Federal environmental statutes. In addition, a supplement, the Technical Noise Supplement (TeNS) was also released containing the Department of Transportation's noise analysis procedures, practices and the standard format for noise study reports.

Despite the release of these publications and the guidance they provide, FHWA has noted some technical reports are not addressing the federal requirements as are described in CaTNAP, and either delaying approval or not approving these documents. Inadequate noise reports can cause significant delays in the environmental process, and it is important for the Department to develop quality noise study reports that cover the policy and guidance described in CaTNAP. The CaTNAP and TeNS and other applicable references are available from the Environmental noise web page at: <http://env.dot.ca.gov/env/noise/index.htm>.

In addition, the new updated Standard Environmental Reference (SER) will be released in the near future at: <http://www.dot.ca.gov/ser/>. The Noise Section of SER will contain information pertaining to the preparation of noise reports. Training for the district staff to develop noise reports will be available and it will be delivered at locations throughout the state. The details of the training courses, dates and locations will be available on the noise web page after the approval of the state budget.

If you have any questions regarding this memorandum, please contact Marge Rouch of my staff at (916) 653-3352.



GARY R. WINTERS, Chief
Division of Environmental Analysis

Attachment

I. SUMMARY (OR EXECUTIVE SUMMARY)

- Purpose of noise report
- Brief description of the project
- Brief description of the land use and terrain
- Existing noise levels (ambient and background)
- Future predicted noise levels
- Traffic noise impacts (if any)
- Noise abatement/mitigation considered (range of heights, lengths, insertion losses, and number of benefited receivers)
- Reasonable monetary allowances per benefited receiver for abatement considered
- Areas where abatement/mitigation are not feasible
- Construction noise

II. NOISE IMPACT TECHNICAL REPORT

A. Introduction

1. Purpose of report
2. Background

B. Project Description

1. Detailed description of all project alternatives
2. Maps showing alignment and profiles

C. Fundamentals of Traffic Noise

1. Decibels and frequency
2. Noise source characteristics (vehicles & roadways)
3. Noise propagation
4. Perception at the receiver, A-weighting, noise descriptors
5. Decibel scale

D. Federal & State Policies and Procedures

1. Traffic Noise Analysis Protocol
2. Technical Noise Supplement

E. Study Methods and Procedures

1. Selection of receivers and measurement sites
2. Field measurement procedures: **(Note: field data in appendices)**
 - a. instrumentation and setups
 - b. noise measurements
 - c. traffic counts and speeds
 - d. meteorology
 - e. data reduction
3. Noise prediction method used:
LEQV2 or SOUND32 based on FHWA RD-77-108 Report
and Calveno (FHWA/CA/TL-87/03) Report

F. Existing Noise Environment

1. Detailed description of noise sensitive land use
2. Maps showing receivers and noise measurement sites
3. Table showing existing noise levels at receivers:
 - a) Field measured results (ambient and background)
 - b) Modeled results
4. Discussion on model calibration (if appropriate) for adjusting modeled noise levels (existing or future)

**G. Future Noise Environment, Impacts, and Considered Abatement/
Mitigation**

1. Discuss future traffic data assumptions and site geometry
2. Table showing predicted noise levels, and identification of traffic noise impacts, if any
3. Discussion of noise abatement options
4. Table showing future noise levels and insertion losses (noise reduction) for various noise barrier heights, lengths and locations
5. Table summarizing data necessary for "Reasonableness" determination
6. Discussion of areas where abatement/mitigation is not feasible

H. Construction Noise

I. References

J. Appendices

1. Instrumentation, manufacturer(s), model, type, serial numbers, calibration
2. Measurement site details, instrument setups
3. Measurement procedures, duration, number of repetitions
4. Measured noise data, dates, times
5. Meteorological conditions
6. Traffic counts
7. Data reduction, measurement results
8. Details of computer modeling assumptions, inputs and outputs